

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The rejection of Claims 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by JP 5-222152 is obviated by the amendments of the claims.

The rejection of Claim 1 under 35 U.S.C. § 102(b) as anticipated by WO 01/34672 is respectfully traversed.

The reference discloses use of (1) urethane prepolymer, (2) an active group that reacts with NCO, and (3) a reactant made by reacting of (1), (2) (urethane) with acid anhydride as a resin raw material. A graft polymer is generated and a rubber like material is made.

On the other hand, in the present invention, a material different from that of the reference is made. In the present invention, since the urethane bond is cut chemically, the original polyol and polyamine of the urethane raw material are generated under different reaction condition.

Therefore, the rejection of Claim 1 under 35 U.S.C. § 102(b) as anticipated by WO 01/34672 is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 5, 11, 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by Falke et al or Lidy et al is obviated by the amendments of the claims.

The rejection of Claim 1 under 35 U.S.C. § 102(b) as anticipated by Aguirre is obviated by the amendments of the claims.

The rejection of Claims 1, 2, 6, 7, 9, 10, 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by Schneider et al is obviated by the amendments of the claims.

The rejection of Claim 5 under 35 U.S.C. § 102(b) as anticipated by Wiggins et al is obviated by the amendments of the claims.

The rejection of Claims 1, 2, 6, 7, 9, 10, 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by Broeck et al is obviated by the amendments of the claims.

The rejection of Claims 1, 2, 6, 7, 9, 10, 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by Heiss ('577) is obviated by the amendments of the claims.

The rejection of Claims 1, 2, 6, 7, 9, 10, 12, 15 and 18 under 35 U.S.C. § 102(b) as anticipated by Heiss ('824) is traversed.

Heiss discloses decomposing urethane resin with an anhydride of carboxylic acid. According to this method, it is necessary to use a lot of decomposition agents. Using the method of the reference, the decomposition takes several hours.

On the other hand, in the present invention, the amount of the decomposition agent to be used is small. Since only a small amount of decomposition agent is used, the decomposition agent seldom remains in the decomposition product which therefore is close to the raw material of the urethane. Therefore, a decomposition product suitable for regeneration can be obtained. Moreover, the decomposition time is very short (in embodiment 21, residence time 4 minutes). Accordingly, this rejection should be withdrawn.

The rejection of Claims 1-4, 9, 10 and 12-14 under 35 U.S.C. § 102(b) as anticipated by Yang et al is respectfully traversed.

In the reference, the end product is a resin which has an unsaturated bond due to the use of an unsaturated acid, while the resin mainly consists of polyol polyamine in this application. Moreover, the reference requires 2 to 3 hours to react urethane and acid anhydride in the initial heating step. And it requires several hours to make an acid react to an ether linkage in the second heating step. On the other hand, in this invention, the reaction is performed in 4 minutes (embodiment 21) by using an extruder that can do heating and mixing simultaneously. Further, the polyol of a urethane raw material has been obtained by reaction of a urethane bond and not with an ether linkage. Moreover, the organic acid that did not

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react with urethane bond reacts selectively with the amine compound generated when a urethane bond is cut. Therefore, it seldom reacts with an ether linkage as is seen in reference. Moreover, in this application, since there is only a little amount of the decomposition agent (acid) used, an acid can seldom remain in the decomposition product obtained, but a compound suitable for regeneration can be obtained. In the reference, the decomposition product that was obtained reacts with glycol which reduces the acidity.

Therefore, the rejection of Claims 1-4, 9, 10 and 12-14 under 35 U.S.C. § 102(b) as anticipated by Yang et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of Claims 4 and 9-20 under 35 U.S.C. 112, second paragraph, is obviated by the amendment of Claims 4, 14, 17, 20, 9-11 and 12, 15 and 18.

The rejections of Claims 2, 5, 7, 8, 10 and 11 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and as failing to comply with the enablement requirement, are obviated by the amendment of Claims 2 and 5.

Further, the Examiner is requested to withdraw the provisional rejections if they are the only issue remaining in one case and convert the provisional rejection in the other application to a double patenting rejection. MPEP 822.01.

In regard to the Examiner's request to point whether 10/870,905 or 10/873,237 and the present invention were commonly owned at the time the present invention was made, Applicants' Representative will update the Examiner in the event that the claims were not commonly owned.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed

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representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.


Respectfully submitted,

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